Inventor: PICKFORD ET AL New U.S. National Stage Application of International Application No. PCT/GB2005/000645
Attention: DO/EO/US

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

- 1. (Currently Amended) A method of treating a titanium metal implant for use in a surgical procedure, so as to form a surface layer that is integral with the metal substrate and which incorporates a biocidal material, by anodising the implant to form a surface layer and then performing ion exchange so as to incorporate ions of a biocidal metal into the surface layer, characterised in that the method comprises anodising the implant at a voltage above 50 V for a period of at least 30 minutes, so as to generate the surface layer, wherein the current density is sufficiently low, the electrolyte concentration sufficiently high, and the duration of anodising and the magnitude of the anodising voltage are such that the anodising generates a dense hard surface layer and also shallow pits in the surface layer which are filled with a somewhat softer and more porous material.
- 2. (Original) A method as claimed in claim 1 wherein the biocidal metal is silver.
- 3. (Currently Amended) A method as claimed in claim 1 or claim 2 wherein the anodising step uses an electrolyte comprising phosphoric acid.
- 4. (Original) A method as claimed in claim 3 wherein the phosphoric acid is of concentration between 5% and 20% by weight.
- 5. (Currently Amended) A method as claimed in claim 3 or claim 4 wherein the electrolyte comprises chloride ions at

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a concentration no more than 500 ppm.